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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/778,006	02/12/2004	John C. Bruce	PD-242.00 / M190.150.101	3346

7590 04/29/2005  
MEDTRONIC, INC.  
Attn: Patent Department  
710 Medtronic Parkway  
Minneapolis, MN 55432

EXAMINER

MARMOR II, CHARLES ALAN

ART UNIT PAPER NUMBER

3736

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

10/778,006

Applicant(s)

BRUCE ET AL.

Examiner

Charles A. Marmor, II

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>07262004</u> .  | 6) <input type="checkbox"/> Other: ____                                     |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because in Figure 10a, the lead lines for reference characters “54” and “58” do not appear to be directed to “the second side of the crystal” and “the bottom of the crystal,” respectively, as described in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

2. The disclosure is objected to because of the following informalities:
  - a. At page 22, line 14, "top 54" apparently should read --top 56--.
  - b. At page 29, line 17, "Fig. 1518" apparently should read --Fig. 15--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-6, 8-18, 20-30 and 32-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Rathjen ('400). Rathjen teaches a device that determines the inner pressure (IOP) of the eye, that effectively is a contact tonometer. The device includes a contact surface (11) for making contact with a surface of the eye (alternatively, the portion of sensor' framing the sensor array may be considered the contact surface); a micro-electro-mechanical system (MEMS) device (111) connected to the contact surface (col. 4, lines 21-22); an electronics unit (14) for receiving the electrical signal and converting an electrical signal from the MEMS device to an IOP signal that is representative of the IOP of the eye; a display (120) for receiving the IOP signal from the electronics unit and displaying information that is representative of the IOP of the eye; and a power source for supplying electrical power to the electronics unit and the display.

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The MEMS device produces an electrical signal corresponding to the force applied by the contact surface to the surface of the eye. An activation switch is connected to the device (col. 8, lines 44-46). A disposable membrane that is non-reactive and bio-compatible is disposed at the contact surface and positioned between the contact surface and the surface of the eye (col. 5, lines 52-55). The power source is batteries (col. 9, lines 12-13). The MEMS device, display and the electronics unit may be formed together in an integrated circuit (col. 6, lines 13-30 and col. 7, lines 22-43). The electronics unit may include a microprocessor or an application specific integrated circuit. The MEMS device is in direct contact with the contact surface. The device may be arranged such that a first housing contains the MEMS device and contact surface and a second housing contains the display (Figure 3), where the first housing is capable of being attached to a human finger and the second housing is capable of being attached to a human hand via an adhesive or tape. Alternatively, the device may be arranged as a single housing containing the contact surface, the MEMS device, the electronics unit, and the display (Figure 2), where the housing is capable of being hand-held.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 7, 19 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rathjen ('400) in view of Fisher ('843). Rathjen, as discussed above, teaches all of the limitations of the claims except that the power source is common electrical power provided through a power line. Fisher teaches that batteries and a power cord are interchangeable as means for supplying power to a portable tonometer (col. 9, lines 3-15). It would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made that a power line could be provided in lieu of batteries in a device similar to that of Rathjen, as a design choice in light of the teachings of Fisher, merely substituting one known power source for another that is known to be equally effective in powering a tonometer.

### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wallace ('968), Jeffries et al. ('487) and Fleischman et al. ('808) teach apparatus for measuring intraocular pressure. Haniff et al. ('461) teach a monolithic silicon intra-ocular pressure sensor with a MEMS device.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Marmor, II whose telephone number is (571) 272-4730. The examiner can normally be reached on M-TH (7:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Charles A. Marmor, II  
Primary Examiner  
Art Unit 3736

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April 21, 2005